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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,859	01/30/2002	Mohamed K. Diab	MASIMO.7CP1C9	7395

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EXAMINER

WINAKUR, ERIC FRANK

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 07/08/2003 *4*

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,859

Applicant(s)

DIAB ET AL.

Examiner

Eric F Winakur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/19/03
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-26 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 2, 4, 5, 7-17, 21, 22, 28, 34-37, 39-46, 50, 53, 58, 62, 64, 67-69, 71, 75, 78, 82, 85 and 89 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claim 27 is objected to because of the following informalities: it appears that the phrase "each calculation technique" should read "each of the at least two alternative methods". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 6, 18 - 20, 27, 29 - 33, 38, 47 - 49, 51, 52, 54 - 56, 59, 61, 63, 65, 66, 70, 72 - 74, 76, 77, 79 - 81, 83, 84, and 86 - 88 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamaguri et al. (USPN 4,714,341 - cited by Applicant). Hamaguri et al. teach an oximetry measurement method that measures signals of three different wavelengths (satisfying the limitation of sensing light of at least first and second wavelengths...), calculating oxygen saturation using two different calculation steps (column 17, lines 3 - 4), and using the two different calculated results to determine the oxygen saturation level. It is noted that applicant's claims include the open-ended transitional phrase "comprising"; although use of a third wavelength signal is not recited in the claims, a method, such as that of Hamaguri et al., that includes all of the claimed steps and steps beyond those set forth in the claim is considered to meet the claim limitations.

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4. Claims 54 - 57, 59 - 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheung et al. (USPN 4,819,646 - cited by Applicant). Cheung et al. teaches a method that includes measurement of light intensities at two wavelengths, and use of the detected intensities to determine values for oxygen saturation and pulse rate using different calculation techniques for each parameter. It is considered that the phrase "utilizing at least one of at least first and second calculation techniques to determine a value representing the physiological parameter" only requires one of the calculation techniques to be able to determine the desired parameter. In other words, although a reference must teach two different calculation techniques to meet the claim language, it does not appear that the claim requires both calculation techniques to produce values related to the same parameter. As such, Cheung et al. is considered to meet the claimed subject matter.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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6. Claims 1, 3, 31 - 33, 47, 54 - 56, 65, 76, and 83 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10, 22, and 23 of U.S. Patent No. 6,157,850. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent relates to determination of a blood oxygen saturation level but does not teach the particular manner of measurement. It was well known at the time of the invention to implement blood oxygen saturation measurement by means of non-invasive measurements of absorption at red and infrared wavelengths. It would have been obvious to use such measurement techniques in the method of the patent, since the patent relates to measurement of blood oxygen saturation, and it would have been obvious to use well known measurement techniques to obtain values needed for producing the desired results. Such a method would also meet the limitations of the claims of the instant application.

Allowable Subject Matter

7. The following is a statement of reasons for the indication of allowable subject matter: It is noted that Applicant cites numerous prior art references. In addition, Simons and Mannheimer et al. teach oximetry methods that perform measurements designed to minimize errors in calculated oxygen saturation values. Unlike the instant invention, they achieve this by measuring at two different locations on a subject, using the same calculation methods on the measured signals, and comparing the calculation results to determine measurement accuracy. None of the prior art teaches or suggests a measurement method that determines at least two values corresponding to oxygen

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saturation (or a value representative of pulse rate or a physiological characteristic) based upon at least two alternative methods of using measured physiological signals and determining a resulting value for oxygen saturation (or the pulse rate or physiological characteristic) from the at least two values that further includes either selecting a maximum value from the at least two values; using frequency domain processing as one of the alternative methods; using a calculation based on a recursive polyphase bandpass filter; using calculation techniques wherein each calculation technique relies on at least partially differing strengths associated with that method; generating and using statistical information in the determining of the value; using spectral domain techniques as one of the calculation techniques; using an adaptive algorithm or self adjusting algorithm as one of the calculation techniques; combining the output values to determine the resulting value; or qualifying the values for inclusion in the step of utilizing .

8. Claims 23 - 26 are allowed.

9. Claims 2, 4, 5, 7 - 17, 21, 22, 28, 34 - 37, 39 - 46, 50, 53, 58, 62, 64, 67 - 69, 71, 75, 78, 82, 85, and 89 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F Winakur whose telephone number is 703/308-3940. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 703/308-3130. The fax phone numbers for the organization where this application or proceeding is assigned are 703/305-3590 for regular communications and 703/305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703/308-0858.

A handwritten signature in black ink, appearing to read 'E. Winakur' with a stylized flourish at the end.

Eric F Winakur
Primary Examiner
Art Unit 3736

June 25, 2003

Continuation of Disposition of Claims: Claims rejected are 1,3,6,18-20,27,29-33,38,47-49,51,52,54-56,59,61,63,65,66,70,72-74,76,79-81,83,84 and 86-88.